

Freezing Your Phonemes Off: Fieldwork Tips for Cold Environments

Linda Lanz, Rice University, lanz@rice.edu



Why cold weather tips?

Numerous fieldwork training guides produced recently, such as Bower (2008); Crowley (2007); Ladefoged (2003); Newman and Ratliff (2001); Vaux and Cooper (1997). Few, however, provide tips for fieldwork in cold climates.

Since many endangered languages are spoken in cold geographic areas, cold weather know-how can benefit linguists and others engaged in language documentation.

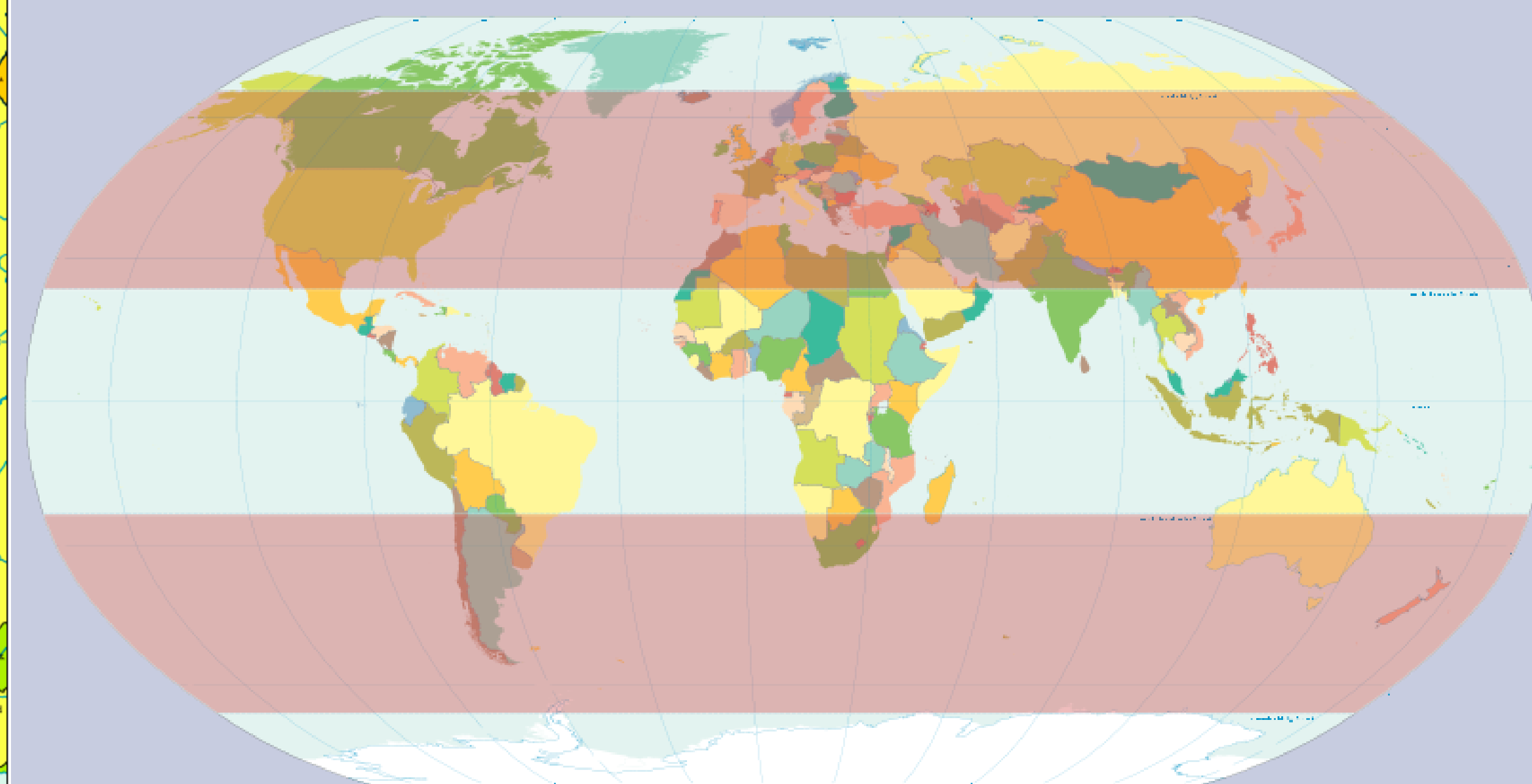
Unique challenges to the researcher working in a cold climate include:

- risks to equipment
- health and safety issues

With this in mind, the tips presented here can aid language documentation efforts.

Cold weather zones

Cold weather zones include the Arctic, subarctic and cold temperate areas (Himalayas, Andes). Antarctic not considered here due to lack of indigenous population and language.



a) Circumpolar arctic; b) arctic, temperate, and tropical zones. *Maps courtesy CIA World Factbook.*

Equipment & Storage Media

Electronic equipment

- check **recommended temperature range** of equipment (including laptop)
- don't let equipment freeze—moisture during melting can cause damage
- **microphones** can be affected by cold, especially frost
 - look into frost-resistant spiffles and/or cover w/ plastic sheeting
 - brush off as much frost as possible before use so melting frost won't get into circuitry
- **batteries** store longer in the cold *but* discharge more quickly when used in cold weather
 - plan to bring more batteries than for warm weather
 - warm batteries up inside your clothes prior to using them
 - choose lithium batteries (won't solve the problem, but lithium batteries last longer)

- solar power at high latitudes may be disappointingly inefficient, even in summer (angle of sun)
- any lubricant/oil may freeze or gum up (e.g. moving camera parts)

Storage & Backups

- CDs/DVDs more brittle in cold weather—be careful not to snap your backups into pieces
- tapes (such as DAT) may become brittle and break, so consider solid state recorders

Low-tech supplies

- have pencils on hand in case ink in pens freezes

Health & Safety

Winter health issues

- **frostbite and hypothermia**
 - familiarize yourself with symptoms and first aid techniques before going to the field
 - wear layers, preferably some wool (retains warmth even when wet)
 - socks and hat are most effective means of retaining warmth
 - Avoid smoking & caffeine. Reduced blood circulation = increased risk.
- **dehydration** isn't just a warm weather risk
 - when bundled up in warm clothes, it's harder to notice that you're sweating, losing water
 - dry (sub)arctic air means you lose moisture when you breathe via evaporation
- if not used to near/total 24-hour darkness, find ways to keep yourself from going stir-crazy
- consider taking vitamin D supplements
- sunglasses useful for preventing snowblindness
- if you wear contact lenses, they may freeze or hurt to wear in extreme cold

Spring/summer health issues

- still possible to get heatstroke, sunburn in the arctic—stay hydrated & use sunblock
- if not used to near/total 24-hour daylight, you may have trouble sleeping
 - sleep mask and/or blackout curtains to block sunlight
 - you may feel energized and not in need of sleep, but still be sure to get some sleep!

Safety issues

- beware **carbon monoxide poisoning** from heaters in poorly ventilated buildings
- in (sub)arctic, watch out for muskeg (bogland) when traveling—easy to get stuck, sink
- for numerous reasons (such as fewer weather meters), Arctic weather forecasts likely to be less accurate; consult locals on weather before going anywhere

Miscellanea

- **alcohol regulations:** many northern areas are dry or damp (especially in Alaska)
 - dry: possession, sale, and consumption of alcohol forbidden
 - damp: possession and consumption OK but not sale
- bring earplugs: people may have lots of dogs, especially where dogsledding is common
- if camping, don't plan on trees for hanging food storage—may be above treeline
- synthetic fiber sleeping bags remain insulating even when damp; down ones don't
- in winter, vehicles need engine block heaters

References

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